

**INSTRUCTIONS FOR COMPLETING THE
CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC)
WATER SUPPLY QUESTIONNAIRE (WSQ)
(FOR OTHER THAN A PUBLICLY-OWNED OR A MUTUAL WATER UTILITY)**

This WSQ is to be completed for the subdivider by the water utility serving the area to certify that it has the ability to serve. This WSQ is to be filed as a standard advice letter, in conjunction with a service area extension, if applicable.

This WSQ must clearly show that:

- (1) the subdivision is entirely within the certificated service area of the utility,
- (2) an adequate supply of water is available¹ for the entire system in which the subdivision is situated, and
- (3) adequate fire flow exists to meet the requirements of all existing customers, the fully developed subdivision, and the anticipated growth during the period of the subdivision development.

Supporting data, calculations, and conclusions are to be included in the WSQ filing. Supporting data (flow quantities, fire flow test, letter from fire protection agency, number of customers, etc.) should not be older than 1 year from the date of the WSQ filing. Calculations must be shown, where required.

Please note that all areas in this WSQ are to be completed, all attachments are to be provided, and the entire package must be verified. Failure to do any of these will mean automatic rejection of the WSQ.

The water utility should provide the information requested in the format as shown in this WSQ. Should the CPUC analyst need additional information, he/she will contact the utility.

Once completed, the WSQ is to be forwarded to:

CPUC
Attention: Water Division, Advisory Branch
505 Van Ness Avenue, Room 3106
San Francisco CA 94102-3298

Any questions regarding the WSQ may be directed to Fred Curry, Chief, at the above address or by telephone at (415) 703-1739.

NOTE: "Subdivision", as used in this WSQ, means that the subdivision for which this WSQ is being prepared.

¹ As defined by the CPUC General Order No. 103
v.04.2000

This WSQ contains the following:

1. Information Cover Sheet.
2. Section A - Water Supply Available For Entire System At Present To Meet The Maximum Day Demand
3. Section B - Water Supply Requirements
4. Section C - Water Supply Conclusion
5. Section D - Minimum 2 Hour Total Flow Requirement
6. Section E – Minimum 2 Hour Total Flow Conclusion
7. Section F - Water Supply Summary
8. Section G- Supporting Calculations For Section A
9. Section H - Supporting Calculations For Section B
10. Section I - Supporting Documentation For Section D
11. Section J - Supporting Documentation For Section E
12. Section K - System Map And Proposed Subdivision Map
13. Certification and Verification Sheet

**CPUC
WATER SUPPLY QUESTIONNAIRE (WSQ)
(FOR OTHER THAN A PUBLICLY-OWNED, OR A MUTUAL, WATER UTILITY)**

Water Supply Utility:

Utility Name: _____

Mailing Address: _____

City _____ State _____ Zip _____

Telephone No.: (_____) _____

Fax No.: (_____) _____

Contact Person: _____

Department of Real Estate (DRE) Information:

Mailing Address: _____

City _____ State _____ Zip _____

Telephone No.: (_____) _____

Contact Person: _____

Assigned DRE No.: _____

Is a DRE letter required? _____ (Yes) _____ (No)

Subdivision to be Served:

Subdivision name: _____

Tract No.: _____

Location: _____

County: _____

Developer: _____

Number of Lots: _____ Number of Acres: _____

Number of Dwelling Units: _____

The subdivision is to be fully developed by _____
(approximate date)

**A. WATER SUPPLY AVAILABLE FOR ENTIRE SYSTEM AT
PRESENT TO MEET THE MAXIMUM DAY DEMAND**

All sources referenced below must be listed individually along with their corresponding supply amounts and all supporting calculations must be shown in Section G.

(1) Flow available for this subdivision from all sources, except distribution storage, on the day of maximum demand [from Section G(1)][°] _____ gpm

(2) Total discharge capacity from distribution storage [from Section G(2)(a) or G(2)(b)] _____ gpm

(3) Total supply available [A(1) + A(2)] _____ gpm

How many independent sources of supply are being utilized? _____

How many such maximum day's storage, or fraction thereof, are available? [from Section G(2)(b)(i)] _____ days

NOTE: The water system must be capable of replenishing the storage lost on the peak day, or long weekend, over the intervening periods of below average water consumption.

[°] During maximum use hours.

B. WATER SUPPLY REQUIREMENTS

(1) Total number of existing and potential residential and business customers:

- (a) Number of residence and business customers in existing filed tariff area _____
- (b) Vacant or unserved lots in existing filed tariff area entitled to water service.
(e.g. undeveloped lots in previously approved subdivisions) _____
- (c) Number of customers in the fully developed applied for subdivision _____
- (d) Total number of customers to be served
[B(1)(a) + B(1)(b) + B(1)(c)] _____

(2) Required water supply for **total residential and business customers** (Q_T):

$$Q_T = Q_F + Q_M = (\quad) + (\quad) = (\quad)$$

Where,

Q_F = Water supply required for flat rate customers.
[From Section H(1)(a)]

Q_M = Water supply required for metered rate customers.
[From Section H(1)(b)]

NOTE: If there is no flat rate service, Q_F is equal to zero.

B. WATER SUPPLY REQUIREMENTS (CONT.)

(3) Required water supply for existing and anticipated industrial, irrigation, and public authority commitments, including those of the subdivision:

	<u>No. of Service Connections</u>	<u>Maximum Demand gpm</u>
(a) Industrial Customers °	_____	_____
(b) Irrigation Customers °	_____	_____
(c) Public Authorities °	_____	_____
(d) Subtotal [B(3)(a) + B(3)(b) + B(3)(c)] ...	_____	_____
(if none, state so)		

These connections are included in Section B(1)(d) and Section B(2) for domestic supply only.

° If any of the maximum demands entered always occur during periods of off-peak system demand, indicate instead your estimate of the demand of each such class of service during the period of maximum system demand.

(4) Total water supply requirements:

(a) Residential and business water supply requirements [Q _T , from Section B(2)]	_____ gpm
(b) Industrial, irrigation, and public authority requirements [From Section B(3)(d)]	_____ gpm
(c) Total water supply requirements [B(4)(a) + B(4)(b)]	_____ gpm

C. WATER SUPPLY CONCLUSION

(1) Apparent excess or deficiency in water supply (in maximum day requirements):

(a) Total water supply available at present
[From Section A(3)] _____ gpm

(b) Total water supply requirements
[From Section B(4)(c)] _____ gpm

(c) Apparent excess (or deficiency)
in water supply [C(1)(a) - C(1)(b)] _____ gpm

(2) If a deficiency is apparent:

Explain plans for meeting such deficiency fully, including a statement of the numbers, types, and capacities of new water supply sources or storage facilities. Use additional sheets if necessary.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

D. MINIMUM 2 HOUR TOTAL FLOW REQUIREMENT

(1) Fire Flow Required: _____ gpm, as indicated in the attached letter [From Section I] dated _____, from the applicable fire protection agency.

(2) Average Daily Requirement (ADR) within the planned subdivision.
Determine by calculating the average daily requirement per existing customer in gpm and multiply it by the number of customer connections (lots) planned in the subdivision:

$$(\text{No. of lots planned}) \times \frac{(\text{Present annual consumption, in gallons})}{(\text{All existing customers}) \times (365 \text{ days}) \times (1440 \text{ minutes/day})}$$

Indicate calculation:

$$\begin{aligned} \text{ADR} &= (\text{_____}) \times (\frac{\text{_____}}{(\text{_____}) \times (365) \times (1440)}) \\ &= \text{_____} \text{ gpm} \end{aligned}$$

(3) Total flow requirement:

- (a) Land use fire flow requirement of local fire protection agency [From Section D(1)] ... _____ gpm
- (b) Average daily requirement within subdivision [From Section D(2)] _____ gpm
- (c) Minimum 2-hour total flow requirement [D(3)(a) + D(3)(b)] _____ gpm

E. MINIMUM 2 HOUR TOTAL FLOW CONCLUSION

Apparent excess or deficiency in total flow:

- (1) State the flow available from the existing system for two hours, at point clearly designated on the water system plan. If subdivision is to be served by extension of an existing system, attach a plan of the proposed water extension [From Section J] _____ gpm

Indicate how determined:

_____ i. Fire flow test made on _____ (date)

_____ ii Other. (Explain): _____

- (2) Flow available from new source of supply provided in support of this subdivision. Indicate on water system plan (e.g. well supply or connection to other supply agency) ... _____ gpm

- (3) Distribution storage discharge capacity (2 hour flow available) [from Section A(2)] _____ gpm

- (4) Total 2-hour flow available to subdivision, [E(1) + E(2) + E(3)] _____ gpm

- (5) Minimum 2-hour flow requirement in subdivision [from Section D(3)(c)] _____ gpm

- (6) Excess (or deficiency) [E(4) – E(5)] _____ gpm

F. WATER SUPPLY SUMMARY

(1) Does water system meet or exceed:

(a) Maximum daily requirements for a fully developed service area?

_____ Yes _____ No

(b) Total flow requirements of the subdivision?

_____ Yes _____ No

If no to (a) or (b) above, please explain: _____

(2) Main Extension Agreement with _____.

(a) Is this a standard agreement? _____ Yes _____ No

If no, explain: _____

(b) Date of agreement: _____

G. SUPPORTING CALCULATIONS FOR SECTION A
**[Water Supply Available For Entire System At Present To Meet The
Maximum Day Demand]**

NOTE: Data submitted should be no more than 1 year old. If supply is from another water agency, you must also include a statement from that agency indicating the available quantity.

- (1) List all water supply sources, except distribution storage, and show the total in Section A(1):

	SOURCE DESCRIPTION (WELL, SPRING, ETC.)	QUANTITY AVAILABLE (GPM)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
	TOTAL QUANTITY AVAILABLE	

G. SUPPORTING CALCULATIONS FOR SECTION A (CONT.)
**[Water Supply Available For Entire System At Present To Meet The
Maximum Day Demand]**

NOTE: Data submitted should be no more than 1 year old.

(2) List all distribution storage sources:

STORAGE	DESCRIPTION	QUANTITY (GALLONS)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
	TOTAL STORAGE CAPACITY	

G. SUPPORTING CALCULATIONS FOR SECTION A (CONT.)
[Water Supply Available For Entire System At Present To Meet The
Maximum Day Demand]

Total discharge capacity is the lesser of (a) total storage capacity [from Section G(2)] divided by 240 minutes (4 hours) or (b) the discharge capacity that represents the use of storage during 4 hours of peak or near-peak demand where one or more maximum days' storage are available. If less than one maximum day's storage is available, the resulting rate should be reduced by multiplying it by the ratio of the total storage to one maximum day's requirements.

Show both methods of calculating total discharge capacity. Enter the lesser of these two figures in Section A(2).

(a) total storage capacity [from Section G(2)] divided by 240 minutes:

(b) Discharge capacity that represents the use of storage during 4 hours of peak or near-peak demand where one or more maximum days' storage are available. If less than one maximum day's storage is available, the resulting rate should be reduced by multiplying it by the ratio of the total storage to one maximum day's requirements:

- i) Show calculation for how many maximum day's storage, or fraction thereof, is available:

H. SUPPORTING CALCULATIONS FOR SECTION B [Water Supply Requirements]

- (1) Show calculations for total required water supply for residential and business customers ($Q_T = Q_F + Q_M$), where the sum of the water supply required for flat rate customers (Q_F) and the water supply required for metered rate customers (Q_M) equals the total required water supply (Q_T).

$$Q = N * c * f$$

Where,

N = The total number of existing and potential residence and business customers [From H(2)].

c = Gallons per minute (gpm), a water use variable depending upon whether the area is to be served at flat or metered rates and depending upon other factors such as area, experience, community, standard of living, climate, class of consumer, quality, and cost of water and sewer facilities. Varies between 5 and 9 for flat rate service and 2 and 5 for metered service, reflecting maximum day domestic usage.

f = A factor to reflect diversity which varies roughly as follows:

For	10 Customers	.....	1.80
For	25 Customers	.....	1.33
For	50 Customers	.....	.97
For	100 Customers	.....	.70
For	300 Customers	.....	.41
For	1,000 Customers	.....	.30 (Minimum)

(a) $Q_F = (\underline{\hspace{2cm}}) * (\underline{\hspace{2cm}}) * (\underline{\hspace{2cm}}) = \underline{\hspace{2cm}}$ gpm
 (b) $Q_M = (\underline{\hspace{2cm}}) * (\underline{\hspace{2cm}}) * (\underline{\hspace{2cm}}) = \underline{\hspace{2cm}}$ gpm

- (2) Provide breakdown of residential and business customers in the system used to determine c factor in Section H(1):

TYPE OF CUSTOMER	NUMBER OF CUSTOMERS
FLAT RATE	
METERED RATE	
TOTAL CUSTOMERS	

H. SUPPORTING CALCULATIONS FOR SECTION B (CONT.)
[Water Supply Requirements]

- (3) Justify c factor used in calculations (varies between 5 and 9 for flat rate service and 2 and 5 for metered service):

I. SUPPORTING DOCUMENTATION FOR SECTION D

[Minimum 2 Hour Total Flow Requirement]

- (1) Attach a letter from the applicable fire protection agency stating their fire flow requirement for Section D(1).

NOTE: Data submitted should be no more than 1 year old.

- (2) The flow standards for public fire protection purposes, set forth below, are those the CPUC considers appropriate for application on an average statewide basis. However, the CPUC recognizes that there are widely varying conditions bearing on fire protection throughout the urban, suburban, and rural areas of California. Therefore, the standards prescribed by the local fire protection agency or other prevailing local governmental agency will govern. Such local flow standards shall be provided whether greater or lesser than those set forth below.

<u>Land Use</u>	<u>Minimum Flow</u>
Rural, residential with a lot density of two or less per acre, primarily for recreational and/or part-time occupancy.	250 gpm
Lot density of less than one single-family residential unit per acre.	500 gpm
Lot density of one or two single-family residential units per acre.	750 gpm
Lot density of three or more single-family residential units per acre, including mobile home parks.	1,000 gpm
Duplex residential units, neighborhood business of one story.	1,500 gpm
Multiple residential, one and two stories light commercial or light industrial.	2,000 gpm
Multiple residential, three stories or higher, heavy commercial or heavy industrial.	2,500 gpm

J. SUPPORTING DOCUMENTATION FOR SECTION E
[Total Flow Conclusion]

(1) Attach any applicable fire flow test results for Section E(1)(i).

NOTE: Data submitted should be no more than 1 year old.

(2) Attach the plan of the proposed water extension and flow availability at identified point(s) for Section E(1).

K. SYSTEM MAP AND PROPOSED SUBDIVISION MAP

(1) Attach a map which delineates the subdivision and which clearly shows that the subdivision is entirely within the certificated service area of the utility. Indicate on the map the locations of:

- (a) all fire flow test(s) conducted
- (b) all water sources
- (c) all storage facilities
- (d) all pressure zones

(2) Attach a subdivision-specific map which clearly shows the details of the subdivision.

NOTE: Data submitted should be no more than 1 year old.

CERTIFICATION AND VERIFICATION

I am the owner, co-owner, or an officer in the corporation shown as the water public utility herein; I have read the statements in this document and known them to be true of my own knowledge, except as to the matters which are therein stated on information or belief, and as to those matters I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, at _____, California.

Signature (If corporate officer, also show title.)